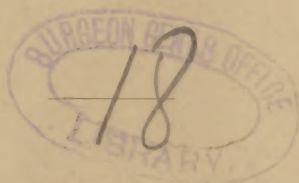


OF THE
MEDICAL GRADUATES
OF THE
UNIVERSITY OF LOUISVILLE:

MARCH 1, 1875.

By DAVID W. YANDELL, M. D.

PROFESSOR OF THE SCIENCE AND ART OF SURGERY AND CLINICAL SURGERY.



LOUISVILLE:
PRINTED BY JOHN P. MORTON & CO.

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Yandell (D.W.)

VALEDICTORY ADDRESS

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CREMATION.

GENTLEMEN,—“To preserve the living and make the dead to live, to keep men out of their urns and discourse of human fragments in them, is not impertinent unto our profession, whose study is life and death, who daily behold examples of mortality, and of all men least need artificial mementos or coffins by our bedside to remind us of our graves.” These are the words of Sir Thomas Browne, who was one of the luminaries of our profession two hundred years ago. Your studies heretofore have related to the living, and your business hereafter will be chiefly with them. We hope it will be a long time before you are troubled much with questions relating to the dead. In one sense, however, and that a very important one, the question as to the proper disposition of the dead concerns especially medical men. The subject of sepulture has become in some parts of the world one of deep concern as bearing upon the health of communities; and as men crowd more and more into cities, it must in time claim the anxious consideration of a much larger number. As guardians

of the public health, physicians must indicate and enforce the hygienic bearing of the subject. To us, it is true, the question has no present interest, and for ages to come it is not likely to press upon our people. And yet even here in Louisville it has assumed a practical shape; for since the town was laid out two public cemeteries have been filled and closed, and the city is fast stretching around and beyond our beautiful Cave Hill. But in countries where the population is dense it is already a question of most serious magnitude how they shall dispose of the dead in such a way as not to affect injuriously the health of the living.

Rest is the thought suggested by death. The body after "life's fitful fever" seems to be at rest. The luster of the eyes has fled; the muscles are rigid; the countenance has lost its animation. All appears to be in a state of repose. But it is not rest. Every moment of life was one of ceaseless activity and change. At no period from birth to the closing hour was it for a moment the same body. The living particles that composed it in infancy had been exchanged for other particles in youth, and those that formed the buoyant body of the young man had given place to others in the frame bent by age. Rest in all its pilgrimage there was none; and after death, when at last all seems to be still, a new arrangement of the elements which constituted the frame is begun. The hydro-carbons that

entered into its composition are resolved into the more simple forms of carbonic acid and water; the nitrogen compounds are converted into ammonia; the sulphur and phosphorus enter into new combinations, and the more perishable parts soon disappear. The bones, slower to yield to the disintegrating forces, crumble at last under the action of water and the atmosphere, and return to dust. Nothing in the end remains of the wonderful organism to distinguish it from the inorganic bodies among which it was entombed. The body seems to have perished. Not only has life become extinct, but all the blocks that framed the glorious temple have been removed and scattered to the winds or mingled with the elements from which they were derived. It seems as if destroyed. To the eye the work would appear to be one of annihilation; and so the ancients thought when they gave the bodies of their friends to the funeral-pile. They fancied that they were destroying them, and that no base or common use could ever afterward be made of what had once been a noble and revered frame. But the fire was only resolving more rapidly the cherished remains into their original constituents, effecting in an hour or two what the slow chemical processes would have required years or centuries to accomplish in the grave. In either case the elements composing the body are only changing their relations; they are scattered, not annihilated. As in

life the waste particles had escaped only to enter upon new offices, feeding vegetables, which were to become in turn the food of animals, so these products of decay are diffused abroad on the air or mix with the soil to form the nutriment of plants.

No power short of the Omnipotence which created matter can ever destroy a particle of it; and by the power which called living matter into existence it has been ordered that it shall be perpetually useful as well as active. Every liberated atom that leaves the bodies of animals, and of god-like man with the rest, by a fiat of the Creator goes unerringly to minister to the wants of other organisms. Dying vegetables sustain the life of animals, and animals returning to dust vegetate again in succeeding generations of plants. One kingdom supports the other, as generations of plants minister to the growth of those that follow.

“Lo! all grow old and die—but see again
How on the faltering footsteps of decay
Youth presses—ever gay and beautiful youth,
In all its beautiful forms. These lofty trees
Wave not less proudly that their ancestors
Molder beneath them.”

Whether we will or not, as the effete matters of our bodies go in life to nourish vegetation, after death the bodies themselves must return to the state in which they become subservient to the vegetable world. “Na-

ture," as Sir Henry Thompson puts it, "will have it so, whether we like it or not. She destines the material elements of my body to enter the vegetable world on purpose to supply another animal organism which takes my place. She wants me, and I *must* go. There is no help for it. Nature hides no talent in a napkin." Whether the body wastes away in the grave or is consumed speedily by fire, the final result is the same.

The question of a change in the present mode of disposing of the dead having been recently much discussed on the other side of the Atlantic, and cremation having been very seriously urged by the writer just quoted, as well as by others, as a substitute for interment of the body, it may not be uninteresting to give some thought to the subject at this time.

Burying, burning, embalming; these are the three modes adopted by humanity for the disposal of its dead. I might stop, if time permitted, to describe what has been called the more "phantastical" modes of disposing of the body after life has left it, as that of the Indian Brahmins, who burnt themselves alive, one of which strange people amazed the Athenians by throwing himself upon his funeral-pile and exclaiming, "Thus I make myself immortal;" or that of the Egyptians, who, afraid of fire, endeavored to preserve the bodies of their dead by precious embalmments and inclosures in glass; or that of the Chaldeans, who, though idola-

ters of fire, abhorred, it is said, the burning of their corpses as a pollution of that deity; or that of the Scythians, who, rejecting all interment, made their graves in the air; or that of the Persians, who, caring only for their bones, gave their flesh as food to dogs and wild beasts; or that of the Musselman, who affects the grave, and requires it to be of such size that he may rise in it to his knees, and there fight the final battle between the white and black angels. But I shall confine myself to the two methods of simple inhumation and cremation, and especially to the latter.

There can be no doubt that the earliest mode was interment. The example of Abraham and of the patriarchs proves it, if we reject the tradition according to which Adam was buried near Damascus, in Mount Calvary. It is in this way that the remains of the great Israelitish leader and law-giver, Moses, were disposed of, as we learn by the hot contest between Satan and the archangel about his body. The practice was to bury their dead out of their sight. But cremation also prevailed at an early age, and to no inconsiderable extent. Homer gives noble descriptions of funerals at which the bodies of his heroes were consumed by fire. That of Patroclus, the friend of Achilles, is one of the most imposing.

The scene is a military camp. The troops, weary after a day of hard fighting, are gathered in silent

squads around their bivouac-fires or lie sorrowful in their tents, for Patroclus, the flower of warriors, has fallen by the hand of the crested Hector. His bleeding corpse lies in the tent of his foster-brother Achilles. On the glowing hearth a huge tripod is quickly placed, in which water is heated to wash the bloody stains from the manly form of the hero. When this has been done the body is anointed with rich oil, and the gaping wounds closed with an old and costly ointment. The body, wrapped in fine linen, is then transferred to a couch, and over all is spread a white mantle. Achilles, unable to restrain his grief, seeks the beach, throws himself down among his Myrmidons, and prays that the voice of the murmuring sea may drown the fierce tumult raging in his breast. Slumber at last enfolds him. The soul of Patroclus comes to his side, and in sorrowful tones entreats that their bones shall not finally lie apart, but be gathered in one receptacle, the golden urn given to Achilles by his mother.

With the morning comes an order from Agamemnon, king of men, that a corps of the army proceed to the forest and gather wood for the mighty pyre that Achilles has designed for his friend. The wood is brought and heaped in a vast pile, a hundred feet in length and of equal width. Slowly and sorrowfully the body of Patroclus is borne from the tent and laid upon the pyre. There it is covered with the locks

of the Myrmidons and the amber hair of the disconsolate Achilles. With it are deposited the heads of two favorite hounds, the fat of a score of oxen, twelve fiery steeds, and the bodies of twelve noble Trojan youths captured in battle and now slain in honor of the occasion. The torch is applied. All night long the flames leap to their devouring task, and the coming day reveals that their work is done. Dark-red wine is poured upon the still glowing embers. The somber ashes of the wood are lifted from the whiter ashes of the bones, and those lying in the center of the pyre are carefully separated from the others and gathered into a golden vase. This is wrapped in a double fold of caul and placed in a fitting tomb, there to rest till others of equal rank with Menaetides shall become shadows; and these last sad rites concluded, the army gives itself up to races and to games.

I might, if time allowed, give you from Homer the description of another funeral which quickly followed this—that of the noble Hector, celebrated within the walls of Troy—but I must pass on to describe a similar scene among another people.

On the 18th of March, in the year 44 B.C., there was seen in the Roman Forum a gorgeously-gilded chapel, toward which a mournful procession was advancing. At the head of the procession, as chief mourner, was an ex-consul. Behind him, on a couch inlaid with

ivory and strewn with vestments of gold and purple, a body was borne by some of the most illustrious men of Rome. It was the body of one who had been the "foremost man of all this world." He had led armies in Europe, Asia, and Africa, and wherever he marched victory marched by his side. For one of his campaigns he had received the honor of a triumph of fifteen days, an honor which had been accorded to no general before. Two years after this he had been honored with a triumph of twenty days. In a few years more a triumph of forty days had been decreed. The senate had saluted him with the title of father of his country, and had decreed that his triumphal car should be borne by horses of the sacred color—white—and that his figure in ivory should be borne in procession among the images of the gods. As great in peace as in war, he had after subduing his enemies turned his mind to great plans for the good of his country. He had proposed to make a digest of the Roman laws, to establish libraries, to drain marshes, to dig canals. But his career had been cut short by a band of assassins, who had plunged twenty-three daggers into his body. The assassins had proposed to throw the body into the Tiber, but had been prevented by fear. For several hours the mangled body had lain neglected where it had fallen, for the attendants of the great imperator had fled with the rest. At length three of the attend-

ants had ventured to take up the corpse and convey it to the pontifical mansion in the Forum; for the murdered man at the time of his death was *pontifex maximus*. Here his agonized wife threw herself on the still bleeding body, and by a tearless grief bore mute testimony to the extent of her loss. His cold form was laid in the great hall, from all sides of which his long line of illustrious ancestors looked down upon it. Messengers were dispatched for Antistius, the surgeon, who came and made careful examination of the wounds. He pronounced but one of the twenty-three stabs fatal; that had penetrated a vital organ, and Cæsar had died of hemorrhage.

The senate had felt itself compelled to decree a public funeral. A pyre had been constructed in the Field of Mars, outside of the walls of the city; for the laws forbade cremation within the walls. But the funeral-oration was to be pronounced in the Forum, and the chapel had been erected toward which the sad procession was moving.

At the head of the couch on which the body was placed lay the toga pierced by the daggers of the assassins. The people had been invited to offer for the pyre garments, jewels, spices, and the order in which they were to come had been prescribed; but so great was the rush to make offerings that the police had been unable to maintain order, and the offerers came

by any route they chose. When the couch was set down the body could not be seen, but an image of wax was turned round by machinery, so that all could see the three-and-twenty wounds. And now the chief-magistrate of Rome ascends the rostra to deliver the funeral-oration. He recites the decrees of the senate, which declare sacred and inviolable the person of the murdered man, and he points to the mangled body before them. After a burst of feeling he girds his robes closely around him, advances to the bier, and chants a hymn to the body as the image of a god. "Thou alone, Cæsar, wast never worsted in battle. Thou alone hast avenged our defeats and wiped away our disgraces. By thee the insults of three hundred years have been avenged. Before thee has fallen the hereditary foe who burnt the city of our fathers." All now turn their eyes to the bloody image, and the groans of men and the shrieks of women drown the voice of the orator. Suddenly seizing the toga which hung over the body, he opens it and shows the rents made by the murderers' daggers. And now the excitement of the people becomes uncontrollable. They cry out that the body shall not be taken to the Field of Mars, but that it shall be burned within the city. Some point to the shrine of Jupiter Capitolanus, others to the palace from which the hero's spirit ascended to the gods. But now men come rushing forward bearing

tables, beams, benches, whatever could be found in the adjoining buildings. Suddenly two young men, with swords by their sides and javelins in their hands, apply the torch. The excited multitude think that in the young men they have seen Castor and Pollux doing honor to their hero. Upon the blazing pile the musicians throw their brazen instruments and splendid dresses, the soldiers their armor, the matrons their ornaments and even the golden bullæ which hung from the necks of their children, while the multitude feed the flames with oils and scented woods. A cry arises, "Let us seize the brands and fire the traitors' houses!" and crowds of infuriated men, with blazing brands rush forth toward the dwellings of the chief-conspirators. When the pyre has been consumed the remaining embers are quenched by wines, the ashes of the bones are separated from the ashes of the wood, reverently washed, wrapped in linen, deposited in a vase of a material befitting the rank of him whom the Romans placed among their gods.

Examples of cremation among the Hebrews are related in the Scriptures of the Old Testament. Thus we read in Amos that Moab burned the bones of the king of Edom into lime; and in the first book of Samuel it is related that "when the inhabitants of Jabesh-Gilead heard of that which the Philistines had done to Saul, all the valiant men arose and went all

night, and took the body of Saul and the bodies of his sons from the wall of Bethsham, and came to Jabesh, and burnt them there. And they took their bones and buried them under a tree at Jabesh, and fasted seven days."

From what has been said you will see that cremation, as practiced in ancient times, was effected at a considerable cost of fuel at least; and on this account it has been objected to by a Frenchman, who declares that if all the ancients had been burned the moderns would have frozen to death for want of wood to make their fires. Recent ingenuity, however, has obviated this objection, and made it possible not only to reduce the body to ashes quickly, but with the consumption of an exceedingly small amount of fuel. Yet, with all that the most improved reverberatory furnace can do in that way, I question whether any real saving has been effected over the plan adopted in the case of Isaac, who, as we read in sacred history, carried his pyre on his shoulders.

Among other objections to inurning the remains of the dead, some one has declared that if the previous dwellers in the world had all been preserved in vases, there would not now be left standing-room for those now alive. Sir Henry Thompson has answered this objection by proposing to scatter the ashes at once upon the fields, that they may immediately pass to

their destined uses. All bodies do not, it appears, burn equally well. The poisoned soldier mentioned by Plutarch "put out two pyres when his belly broke." To avoid such accidents it has been suggested to add the body of one woman to the bodies of eight or ten men, as being more inflammable, and therefore likely to make things warmer.

The only instance of cremation in this country of which I have any knowledge occurred many years ago, and in the person of a noted citizen. I am indebted for an account of it to my learned colleague, Dr. Bell.

Henry Laurens was one of the wealthiest merchants of Charleston. When the revolutionary struggle commenced he was in Europe superintending the education of one of his sons. He immediately returned home, threw himself with great vigor into the contest, was one of the foremost patriots of South Carolina, and enjoyed the unbounded confidence of Washington. He was elected a delegate to the Congress of 1776, and was elected president of that body. In 1779 he was sent as minister plenipotentiary to Holland; but, having been captured by a British vessel, was confined to the Tower of London for fourteen months. The British authorities made him many offers to abandon the cause of his country, but they were all spurned. Soon after his release Congress appointed him one

of the commissioners to make a treaty of peace with Great Britain, and in 1782, in conjunction with Franklin and Jay, he signed the preliminaries of the treaty.

It is known that the distinguished South Carolinian made a will which contained the most positive commands for the burning of his body. The reason for this strange order is not generally understood. Laurens had a daughter, one of the loveliest of the girls of South Carolina. When about fifteen years of age she apparently died, and was shrouded and placed in a coffin for burial. The coffin was open, and lay in a room fronting the bay. A number of her friends, young ladies and gentlemen, were sitting as watchers of the corpse. As one of the ladies walked near the coffin she was startled by a slight movement of the body, and her actions drew the other watchers to the coffin. They were soon convinced that Miss Laurens was alive. The family were summoned and prompt measures taken for her resuscitation, which were successful. She afterward married Dr. David Ramsey, the patriot and historian, and an eminent physician of Charleston. Laurens never forgot the scene in his house connected with the narrow escape of his daughter from being buried alive. In prescribing cremation for his body, and in directing disinheritance for disobedience of this order, he declared that he could conceive of nothing more terrible than resuscitation

in a closed grave. His body was burned in accordance with the injunctions of his will.

The Christian religion brought to light a truth which finally rendered cremation odious. As it has been expressed, it "glossed the deformity of death by careful consideration of the body." Recognizing the body as the lodging of Christ and the temple of the Holy Ghost, Christians were considerate of it, as well as of the immortal soul, and attended its burial with long services and full solemnities; and so Christianity "gave final extinction to the sepulchral bonfires," and the practice of cremation died out by the beginning of the fourth century.

One of the arguments which have been presented in favor of cremation is that what remains of the body after the analysis of fire is unchangeable. As Sir Thomas Browne expresses it, "He that hath the ashes of his friend hath an everlasting treasure. Where fire taketh leave corruption slowly enters. In bones well burnt fire makes a wall against itself." But cremation is urged upon much more practical grounds. It is urged as a measure necessary to the health of the living in communities where great numbers of bodies are undergoing decomposition, preventing, as it does, the process of putrefaction and all its attendant evils. It is less expensive than burial as now conducted, and renders costly cemeteries unnecessary.

. Sir Henry Thompson, one of the most brilliant surgeons of modern times, and withal a conspicuously liberal and enlightened philanthropist, thus sums up the advantages of cremation: "For the purposes of cremation nothing is required but an apparatus of a suitable kind, the construction of which is well understood and easy to accomplish. With such apparatus the process is rapid and inoffensive, and the result is perfect. The space necessary for the purpose is small, and but little skilled labor is wanted. Not only is its employment compatible with religious rites, but it enables them to be conducted with greater ease and with far greater safety to the attendants than at a cemetery. For example, burial takes place in the open air, and necessitates exposure to all weathers; while cremation is necessarily conducted within a building, which may be constructed to meet the requirements of mourners and attendants in relation to comfort and taste. Cremation destroys instantly all infectious quality in the body submitted to the process, and effectually prevents the possibility of other injury to the living from the remains at any future time."

In reading the history of cremation as practiced in various nations, one can not fail to be struck with the tenderness exhibited by the survivors to the relics of the departed. The bones were carefully washed with wine and milk, "and mothers wrapped them in linen

and dried them in their bosoms, where they had been first fostered and nourished." Artemisia, the wife of Mausolus, even went so far as to drink of the ashes of her husband, erecting over the remainder a tomb of such magnificence that it ranked long as the seventh wonder of the world.

But there is another fact with which we are impressed as we read this history, and that is the proof afforded every where of the early and universal respect to another life and a future state of existence. "Before Plato could speak," it has been beautifully said, "the soul had wings in Homer." All men craved immortality, and believed that their friends were alive in another world. Ulysses, that "unconquerable man," was unconcerned as to how he should live here, provided he could have a noble tomb after death. Socrates said to his friends, "You may bury my body if in that you think not you are burying Socrates." The philosopher, regarding only his better part, was indifferent whether his body should be burnt or buried. When proceeding to the last sad office they that kindled the funeral-pile turned their faces away, as expressing an unwilling ministration; and before applying the torch they raised their eyes toward heaven as the place of their hopes. Lucian, though in a jesting way, expressed the prevailing belief of his times when he said of Hercules, "That part which proceeded from Alcmena perished, while

that from Jupiter remained immortal." Such was the belief of these ancient pagans; and, though they saw the body perishing in the flames, they were assured that the soul endured forever.

But I must hasten to a close. Only a few words remain to be spoken. The bond which has so pleasantly united us as officers and students of the University of Louisville is now severed, and we take you, pupils no longer, by the hand as professional brothers. Be assured that you will bear away with you our best wishes. Go forth into the world and triumph; such is the prayer of your teachers. We hope the day is far distant when the obsequies of which I have been speaking to-night will be solemnized in the case of any of you. We expect you to prove worthy of the profession in which your new title declares you to be both skilled and learned, discharging faithfully its gentle and tender offices, and fulfilling unselfishly all its lofty obligations; and then it will indeed be but a small matter with you whether your ashes shall be gathered in costly urns, or your bodies lie beneath the rock-ribbed hills or are hidden in the caverns of the sea. Doing well your duty, you need give no thought to the rest. Gentlemen, farewell!

